

~~RESTRICTED~~

MS # P-041 o

REPRESENTATION

OF

ENGINEER INTERESTS, INCLUDING RAILROAD AND FORTRESS ENGINEERS

1938 - 45

by

Alfred Jacob, General der Pioniere a.D.

Translator: P.W. Luetzkendorf
Editor : L.F. Schaefer
Reviewer : Capt. W.F. Ross

Historical Division
HEADQUARTERS
UNITED STATES ARMY, EUROPE

-1-

Restricted Classification
Removed Per
Executive Order 10501

~~RESTRICTED~~

~~RESTRICTED~~

HEADQUARTERS
EUROPEAN COMMAND
Historical Division
Foreign Military Studies Branch
APO 164 US Army

28 July 1952

MEMORANDUM FOR: CHIEF, FOREIGN MILITARY STUDIES BRANCH

SUBJECT : Reviewer's Evaluation of MS # P-041 o

1. Military Review of MS # P-041 o, "Representation of the Engineers, Railroad Engineers, and Fortress Engineers in the Army High Command," was completed this date.

2. The somewhat long and cumbersome title of this study reflects the complicated and involved relationships between the staff offices concerned. This 36-page study, with 11 single-page Annexes briefly describes the duties and responsibilities of three chiefs of technical services. From the American point of view, the very existence of these three separate staff offices is unnecessary, and their difficulties in performing their duties likewise fills an American with impatience. Whatever the excellence of German staff methods may have been, they had to be applied under circumstances that no American commander would have tolerated. The German failure to establish a logical and effective command structure for their technical services makes their wartime experience almost useless to the American officer.

3. This report will be of some interest to the specialist in German staff procedures. It does not appear to offer anything interesting or helpful to American engineers.

4. Publication in EUCOM is not recommended.

WILLIAM F. ROSS
Captain Artillery
Military Editor

-ii-

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

C O N T E N T S

	Page
I. THE INSPECTORATE OF ENGINEERS FROM 1938 TO THE BEGINNING OF THE WAR	1
1. Training	1
2. Organization	4
3. Personnel Affairs	4
4. Engineer Equipment and Means of Combat	4
5. Barracks and Training Grounds	4
II. THE INSPECTORATE OF ENGINEERS FROM THE BEGINNING OF THE WAR TO 15 OCTOBER 1939	7
III. THE INSPECTORATE OF RAILROAD ENGINEERS FROM 1938 TO THE BEGINNING OF THE WAR	10
IV. THE INSPECTORATE OF FORTRESSES	13
V. THE GENERAL OF ENGINEERS AND FORTRESSES WITH THE ARMY COMMANDER-IN-CHIEF AS OF 15 OCTOBER 1939	17
1. General	17
2. Engineers	19
3. Fortresses	24
4. Position of the General of Engineers and Fortresses with Relation to the OKW	30
VI. FINAL OPINION CONCERNING THE TOP-LEVEL REPRESENTATION OF ENGINEERS, CONSTRUCTION ENGINEERS, AND FORTRESSES IN THE ARMY HIGH COMMAND	38

ANNEXES

Annex 1 - INSPECTORATE OF ENGINEERS FROM 1938 TO THE BEGINNING OF THE WAR ON 1 SEPTEMBER 1939 (PEACETIME ORGANIZATION)	45
--	----

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

C O N T E N T S (cont'd)

	<u>Page</u>
Annex 2 - BASIC DIRECTIVE GOVERNING THE INSPECTOR OF ENGINEERS	46
Annex 3 - DUTIES OF THE INSPECTORATE OF ENGINEERS	47
Annex 4 - ORGANIZATION OF TOP-LEVEL REPRESENTATION OF ENGINEERS FROM 1 SEPTEMBER 1939 TO 15 OCTOBER 1939.	49
Annex 5 - ORGANIZATION OF THE GENERAL OF ENGINEERS AND FORTRESSES WITH THE ARMY COMMANDER-IN-CHIEF AS OF 15 OCTOBER 1939	50
Annex 6 - DUTIES OF THE INSPECTORATE OF RAILROAD ENGINEERS (Inspectorate 1c)	51
Annex 7 - BASIC REGULATIONS GOVERNING THE INSPECTOR OF FORTRESSES WITH THE COMMANDER, REPLACEMENT ARMY.	53
Annex 8 - DUTIES OF INSPECTORATE OF FORTRESSES (In Fest)	54
Annex 9 - DUTIES OF GENERAL OF ENGINEERS AND FORTRESSES WITH THE CHIEF OF THE ARMY GENERAL STAFF AFTER 1942.	57
Annex 10 - ORGANIZATION OF GENERAL OF ENGINEERS AND FORTRESSES IN THE ARMY HIGH COMMAND TOWARD THE END OF THE WAR.	61
Annex 11 - ORGANIZATION OF THE STAFF OF THE GENERAL OF ENGINEERS AND FORTRESSES IN THE ARMY HIGH COMMAND AS OF 1945.	62

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

The Author

Alfred JACOB
General der Pioniere a.D.
Date of birth: 1 April 1883
Place of birth: Munich

JACOB joined the Army as an officer candidate in 1902 and after appropriate training was assigned a second lieutenant to the 2d Bavarian Engineer Battalion. In World War I he served with railway operating troops and in staff positions with fortification troops in Germany and in France.

Retained in Germany's reduced Army after World War I, JACOB remained in the engineer services until the end of World War II. In 1938 he was assigned to the Army High Command as Inspector of Engineers and Fortifications and shortly after the outbreak of war was appointed Chief Engineer and Fortifications Officer attached to the Commander-in-Chief of the Army. In 1933 he was promoted colonel, in 1936 Generalmajor, in 1938 Generalleutnant and in 1940 General der Pioniere.

The general was taken prisoner at Saalfelden, Tyrol, Austria on 8 May 1945.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-1-

I. THE INSPECTORATE OF ENGINEERS FROM 1938 TO THE BEGINNING OF THE WAR

The functions of the inspectorate and the ways and means available for their performance are summarized on the organization chart (Annex 1), the Basic Directive (Annex 2), and the Duties of the Inspectorate (Annex 3).

The following are a few illustrative examples:

1. Training:

a. The March 1938 basic training directive for engineers and field unit engineers was drafted by the Inspectorate, submitted to the Commander-in-Chief of the Army by the inspector personally and signed by the Commander-in-Chief of the Army.

b. In March 1938 a memorandum of fundamental significance was prepared concerning a terrain discussion conducted by the inspector on the subject "March of an Army Corps Across the Rhine River Without the Use of Civilian Bridges" during an engineer exercise trip in 1937. This memorandum was signed by the inspector.

c. In winter 1938 to 1939 the inspector attended the winter training of ten engineer battalions involving normal troop duties as well as map exercises and war games and took part in the review of the recruits of eight engineer battalions.

d. In May and November 1938 the inspector held conferences with the Senior Engineer Officers 1 to 5, the Commanders of the

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-2-

Engineer Schools I and II, and the Commander of the Engineer Instruction and Proving Battalion for the purpose of discussing and determining training and organizational principles.

e. In April 1938 a training course for senior grade engineer officers on the training, organization, and command of engineers was conducted in Berlin and at Engineer School II under the direction of the Inspectorate.

f. In October 1938 a training course for the engineer instructors of the military academy and the officer candidate schools on the teaching functions of these schools and on innovations in engineer weapons was conducted under the direction of the Inspectorate.

g. In December 1938 a training course for senior grades of engineer officers, intended as an introduction by means of map exercises to the manual "Command of Engineers," which was then in preparation, was conducted under the direction of the Third Senior Engineer Officer.

h. In May 1939 an engineer staff exercise along the Danube River was carried out under the direction of the inspector, during which open-air terrain discussions and lectures on military history were held.

i. In June 1938 and 1939 the Engineer Instruction and Proving Battalion carried out march exercises.

(1) from the Rhine to the Elbe River.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-3-

- (2) from the Danube (Upper Austria) through Bavaria to the Elbe River.

The object of the exercise was to practice the quick forcing of waterways in motorized march by commitment of personnel and equipment in leap-frog movements. The inspector attended the exercises and prepared the problems.

j. In summer 1939, combined arms exercises, with the commitment of major engineer forces, were directed by

the Third Senior Engineer on the Elbe River;

the Second Senior Engineer on the Weser River; and

the Commander of Engineer School II in the Harz Mountains.

by order of the inspector.

k. In summer 1938 the Commander-in-Chief of the Army, acting on special suggestions by the inspector, ordered the following special ruling for the engineers:

- (1) Rescission of the too restrictive safety regulations governing the throwing of live hand grenades.

- (2) Adoption of special exercises approaching actual war conditions, in which live explosives were to be used in attacks on fortified positions to facilitate the realistic training of assault engineers.

- (3) Adoption of continuous training courses for assault engineers at Engineer School II in Dessau-Rosslau.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-4-

2. Organization:

In 1938-39 the inspector convinced the Army Commander-in-Chief that an increase of infantry pioneers could not take place at the expense of divisional engineers. The Organization Branch requirement read as follows: "The infantry pioneers will be increased in strength through a decrease in the strength of divisional engineers to two companies which decrease will be compensated by full motorization."

3. Personnel Affairs:

The inspector exerted a fundamental influence on the systematic appointment of particularly able officers from Germany proper to officer positions in the new engineer battalions in Austria.

4. Engineer Equipment and Means of Combat:

The inspector succeeded in his efforts to have the Type C light bridge equipment (introduced in infantry divisions in 1936 at the demand of the Organization Branch) discarded and the Type B bridge equipment with a capacity of 24 tons introduced as standard army bridge equipment.

5. Barracks and Training Grounds:

Approval was obtained for the inspector's demand for two large engineer training grounds suitable for sizable combined arms exercises on the Rhine and Danube Rivers.

After 1 October 1939, since a general peace was expected following the collapse of France, the following peacetime reorganization

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-5-

in the OKH (Army High Command) was under consideration:

Commander-in-Chief of the Army

General Army Office

Inspector General for Training

Branches of the various
service arms

Inspectors of the various service
arms with their Inspectorates

including the

including the

Engineer Branch
(Inspectorate 5) and the

Inspector of Engineers

Railroad Engineer Branch
(Inspectorate 10)

Inspector of Railroad Engineers

Grave doubts existed about this proposed reorganization. According to tradition in the German Army training was the responsibility of the corps commanders who in turn were responsible to the Commander-in-Chief of the Army and to interpose an Inspector General for Training could only have obscured this clear responsibility. The position of the inspectors of the various service arms, whose function was to represent the interests of their respective arms in the General Army Office, the Army Ordnance Office, and the Army Personnel Office, neither would have been clarified nor strengthened by their subordination to an "Inspector General for Training."

The advantages of the intended reorganization were as follows:

1. Only one single organ would have been responsible to the Commander-in-Chief of the Army for all matters relating to training instead of, as hitherto, the ten inspectors and the troop and officer training branch subordinate to the Chief of the General Staff, so that

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-6-

all training matters would have been more firmly controlled.

2. In their work the inspectors of the various service arms could have concentrated better than hitherto on their most important field, that of training.

In spite of this arrangement the inspectors were to have retained from among their former assignments the function of submitting suggestions for the continued development of their arm of service, that is for organization and for the development of weapons. Furthermore, their influence upon appointments to officer positions was to be preserved. This peacetime organization would be more practical and more uniform than the old organization.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-7-

II. THE INSPECTORATE OF ENGINEERS FROM THE BEGINNING OF THE WAR
TO 15 OCTOBER 1939

1. Upon mobilization on 1 September 1939, a special post of Inspector of Engineers and Railroad Engineers, staffed with one general and one adjutant, had been formed and attached to the Commander of the Replacement Army in the place of the existing peacetime Inspector of Engineers, Railroad Engineers, and Fortresses, the function of the new agency being to supervise the training of engineers and railroad engineers in the Replacement Army. Like all other attached arms inspectors he was assigned to the Commander of the Replacement Army. The corresponding arms branches in the General Army Office, in this case Inspectorate 5 and Inspectorate 10, were at his disposal as working staffs (Annex 4). The post of Inspector of Fortresses with the Commander of the Replacement Army, remained occupied by the peacetime Inspector of Engineers, Railroad Engineers, and Fortresses, who was personally subordinate to the Army Commander-in-Chief.

2. However, a representation of engineers and construction engineers at the OKH (field command) was lacking. All necessary orders after the outbreak of the war therefore had to go through the roundabout channel from the Engineer Branch (Inspectorate 5) - General Army Office - Chief of Army Equipment and Commander of the Replacement Army - OKH (field command), with the parallel Engineer Branch of the General Army Office sometimes also entering the picture. Delays were the result.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-8-

3. At the end of the Polish Campaign establishment of the "General of Engineers and Fortresses with the Commander-in-Chief of the Army" therefore was ordered for 15 October 1939, as it had become evident very soon after the beginning of the war that a representation of the service arms at OKH headquarters was necessary. For a chart of this organization see Annex 5.

4. In many cases the work of the Inspector of Engineers in the Replacement Army and of the Engineer Branch (Inspectorate 5) with Engineer School, the Engineer Regulations Branch, and the Instruction Battalion was required for the quick execution of intentions and missions of the General of Engineers and Fortresses with the Commander of the Replacement Army. The necessary inquiries and orders were mostly exchanged directly, avoiding the roundabout way through the chiefs of the above-mentioned agencies, and no friction of any kind ever arose from this arrangement.

Examples of the results of such good and quick cooperation between the engineer agencies assigned to the Chief of Army Equipment and Commander of the Replacement Army on the one hand and the General of Engineers and Fortresses on the other hand are innumerable, a few of which follow:

a. Speedy preparation and distribution of manuals and memoranda on the basis of requirements or new experience gathered by the Field Army.

b. Speedy technical and tactical experiments, for example with captured mines.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-9-

c. Quick institution of special training facilities and training courses on the basis of future intentions of the high command, such as training of engineers and assault boat crews on rivers with strong currents in preparation for the crossing of the Upper Rhine in 1940.

d. Dispatch to the West Wall in 1939 of instruction teams of the Instruction Battalion detailed for training in the use of mines on the basis of the first war experience with untrained troops.

e. The Inspector of Engineers with the Commander of the Replacement Army, officers of the Engineer Branch (Inspectorate 5), the Dessau-Rosslau Engineer School, and of the Instruction Battalion were dispatched to the battle fronts to obtain an immediate, on the spot evaluation of combat experience for training in the Replacement Army.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-10-

III. THE INSPECTORATE OF RAILROAD ENGINEERS FROM 1938 TO THE BEGINNING OF THE WAR

The Inspectorate of Railroad Engineers was formed on 1 September 1938, initially only as an arms branch of the General Army Office (Inspectorate 10). Its position in relation to the General Army Office was the same as that of the Inspectorate of Engineers. For its duties see Annex 6. The Inspector of Engineers, who was appointed on 1 December 1938, simultaneously became Inspector of Railroad Engineers since he had belonged to the railroad troops for a considerable period prior to 1914 and during World War I. The assigned troops, one Instruction and Proving Battalion as well as the cadre for the railroad engineer regiment which was formed in autumn 1938 were drawn from the engineers.

The basic regulations governing the Inspector were essentially the same as those for the Inspector of Engineers (Annex 2). Upon mobilization in 1939 the Inspectorate was again withdrawn from the control of the peacetime Inspector of Engineers and became an arms branch (Inspectorate 10) of the General Army Office like all other arms inspectorates and its co-operation with the Commander of Railroad Troops, newly established upon mobilization, was made mandatory. Responsibility for specialist training in the Replacement Army was assumed on 1 September 1939 by the newly appointed Inspector of Engineers and Railroad Engineers of the Replacement Army. The peacetime appointment of the Inspector of Engineers simultaneously to the

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-11-

post of Chief of the Inspectorate of Railroad Engineers was an emergency measure, taken only because no suitable senior general was available. Furthermore, the young railroad service could best be aided by personal union with the engineer service since the railroad engineers for the time being were completely dependent on the sister service, the engineers, for officer, noncommissioned officer and enlisted man replacements as well as for supplies of equipment. This was the only possible way for the Inspectorate to create the cadre for a sizable railroad force during the brief period up to the war. Chief emphasis in the short peacetime training was placed upon construction of military bridges, while the construction of field and standard-gage railroad was treated as an incidental field. The speedy development of equipment for the construction of bridges, field, standard-gage, and cable railroads, and roads had to be achieved by the Army Ordnance Office.

Had there been time for systematic peacetime development, the Inspectorate of Railroad Engineers would never have been coupled with that of the Engineers, but would have been set up as an independent inspectorate with its own inspector and probably instructed to co-operate with the Chief of Transportation of the General Staff of the Army. In peacetime the Inspectorate also handled road construction units and road construction equipment as well as snow clearing units and their equipment. During the war the commitment of these was the responsibility of the Chief of Army Supply and Administration, and later of the General of Engineers and Fortresses with

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-12-

the Commander-in-Chief of the Army, while their supplies were handled by the Inspectorate of Engineers with the Commander of the Replacement Army (Inspectorate 5), and later by the Inspectorate of Fortresses.

/

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-13-

IV. THE INSPECTORATE OF FORTRESSES

The Inspectorate of Fortresses emerged in 1935 from the Fortress Construction and Administration Branch of the then Inspectorate of Engineers and Fortresses in the OKH. After the restoration of Germany's military sovereignty in 1935 the tasks of national defense, which owing to Germany's generally unfavorable frontiers from the viewpoint of military geography had greatly increased by then and which steadily grew in volume and diversity required a separate inspectorate to handle the work of national fortifications. For basic regulations governing the Inspector see Annex 7.

The duties of the Inspectorate of Fortresses are shown in Annex 8. It mirrors the manifold functions to be performed in the field of national fortification. Responsible direction in the field of national fortifications was incumbent upon the Inspector of Fortresses; in this function, according to his basic directive, he was adviser to the Commander-in-Chief of the Army, to whom he was immediately subordinate in all tactical and technical matters of national fortification. As a service branch the Inspectorate organically was a part of the General Army Office.

The responsibilities of the Inspectorate of Fortresses (Annex 8) required closest co-operation with almost all agencies of the OKH, the Navy, and the Luftwaffe, as well as with agencies and authorities outside the Wehrmacht, such as the Organization Todt, the Reich Labor Service, the construction industry, and with local Reich and communal

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-14-

authorities (district presidents and magistrates, and mayors - according as rulings concerning acquisition of land and proclamation of restricted areas required in each case).

In respect to the over-all strategic planning of fortifications within the pattern of national defense the Inspector received directives or orders from the Chief of Army General Staff, there being a special National Fortifications Branch (Branch 10) within the General Staff until 1940 and from the fall of 1944 onward. The discharge of missions concerning national fortifications in addition required closest co-operation with almost all branches of the general staff in matters relating to command, organization of the employment of men and materiel, training of the Fortress Engineer Corps, preparation of manuals, supply, and counterintelligence.

In addition, close co-operation was necessary with the General Army Office in the procurement of raw materials, with the Army Ordnance Office of all matters of technical development and procurement of fortress construction elements and fortress weapons, with the Army Personnel Office for the transfer of officers of all arms to the fortification service, with the Army Administration Office in all matters relating to pay requirements for officials, employees, and special workers and the economic problems connected with them, and in all matters concerning the restricted area law.

The realization that the field of national fortification no longer was a province of engineers and fortress engineers alone

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-15-

necessitated a large-scale use of officers of all arms in planning and constructing national fortifications. For this reason representatives of the inspectorates of the chief arms, the infantry and the artillery, were employed in the staff planning of national fortifications at the Inspectorate of Fortresses. This requirement was met by the attachment of one staff officer each of the Inspectorate of Infantry and the Inspectorate of Artillery to the staff of the Inspectorate of Fortresses. But they remained assigned to their inspectorates and were at the same time the responsible officers in charge of fortification affairs there.

For matters concerning geologic conditions in the construction of fortifications the Inspectorate of Fortresses had a special section for military geology. Its chief responsibilities were investigation of the soil at the construction sites and water supply and drainage of permanent fortifications in the interest of a vital supply of future garrisons as well as execution of the actual construction.

Of special significance was the rearing of tactically and technically well trained young officers and officials for the purposes of national fortification. This was achieved in training courses extending over several years at the Berlin-Karlshorst Engineer School. Supplementary training during the war was given in courses extending over several weeks at this school, with officers of all arms being drawn upon. A source of greater anxiety was the creation of a construction service as relief to the engineers; in peacetime it was

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-16-

a purely theoretic, preparatory special defense task, since in peacetime there was no construction service and not even cadres for it, whereas in the event of war the construction troops were indispensable for the equipment of the defense positions within the fortifications pattern with arms. Thus preparation for its mobilization was mandatory and had to be assigned priority. Section III of the Inspectorate, designated "The Technical Development Section For All Construction Elements and Fortification Weapons" needs particular mention. It discharged its responsibilities in closest co-operation with the Fortress Branch of the Army Ordnance Office. The aim of this work was to give the fortress garrisons a maximum of protection from modern offensive weapons by means of armor and reinforced concrete, the goal being to achieve a minimum of manpower by automatic rapid-fire fortress weapons with modern means of direction and observation as well as by preparing large ammunition stocks.

On special testing grounds of the Ordnance Office (at Hillersleben) and also of the armament industry, construction elements (armor, concrete thicknesses, and so forth) and fortress weapons were continuously examined, tested, and improved. In all these special technical tasks the Inspectorate of Fortresses played a decisive part through its Section III.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-17-

V. THE GENERAL OF ENGINEERS AND FORTRESSES WITH THE ARMY
COMMANDER-IN-CHIEF AS OF 15 OCTOBER 1939

1. General

The post of "General of Fortresses with the Commander-in-Chief of the Army" was formed at the end of the Polish Campaign on October 15, 1939, and he was attached to the Commander-in-Chief of the Army as the chief of a service arm. Like all other service chiefs this one was billeted in the vicinity of the Commander-in-Chief of the Army.

Strength: One general (major general), one adjutant, one officer in charge of personnel matters (major or colonel), one Engineer Section (two officers) and one National Fortification Section (one officer, one fortress construction official, one registrar (official)). At that time the General of Engineers and Fortresses was thought of as a liaison organ between the Commander-in-Chief of the Army and the troops at the front, a function that essentially consisted of the General or his assistants making trips to the front and communicating the wishes of the troops of his arm of service and of their superior commanders as well as his personal observations, experience and complaints to the Commander-in-Chief of the Army and the appropriate agencies in the OKH. The requests, experience, and complaints gathered on occasion of such trips generally concerned organization, equipment, training, supply -- particularly of engineer

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-18-

and fortress equipment -- replacements of officers and enlisted men, and tactical and technical engineer experience. Such evaluation gave the proper branches of the general staff considerable extra work so that the latter were unable, because of the volume of the work, to speedily evaluate all requests, experience, and so forth. At the same time, many inquiries, requests for comment, and suggestions were sent to the office of the General of Engineers and Fortresses by the Commander-in-Chief of the Army and the branches of the general staff on the basis of reports available there and of studies and planning of its own. Thus the office of the latter General of Engineers and Fortresses was more and more burdened with trips to the front, masses of written work and considerable drafting projects. At the same time there were current studies for further reinforcement of the West Wall, for evaluation of foreign national fortification systems, for construction of positions in the East. Later preparations for the establishment of an Atlantic Wall and preparation of manuals and memoranda for the field units and so forth were added. The consequence was a constant increase of the personnel of the General of Engineers and Fortresses so that in January 1942 the conversion of the Engineer Section and the National Fortification Section into an Engineer Branch and a National Fortification Branch, each with a colonel as branch chief, became necessary. For a chart of the organization see Annex 5, for a list of duties Annex 9. The National Fortification Branch must not be

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-19-

confused with the earlier National Fortification Branch (Branch 10) in the Army General Staff prior to 1939 and subsequent to the fall of 1944.

After the dismissal of Field Marshal von Brauchitsch in December 1941 the General of Engineers and Fortresses was attached to the Chief of General Staff. Since the General of Engineers and Fortresses generally had only the right to make suggestions and was bound to the decisions of the Chief of the General Staff, after Hitler's assumption of the post of Army Commander-in-Chief he was the only superior agency in the event of differences of opinion with the Chief of the General Staff, the Personnel Office, or the Commander of the Replacement Army. This meant in practice that such superior agency did not exist.

2. Engineers

Commitment of engineer units like that of all other troops in the Army was always handled by the Army General Staff. In view of the scarcity and the multiplicity in employment of engineer units the General Staff officers in charge had to increasingly avail themselves in the course of the war of the co-operation of the Engineer Branch of the General of Engineers and Fortresses and to ask for suggestions from the Chief of the Engineer Branch or the appropriate officers handling engineer affairs. For this reason the General of Engineers and Fortresses was obliged continuously to maintain accurate files of every single engineer unit indicating at any time the place of commitment and condition with regard to personnel and materiel.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-20-

Likewise files were necessary containing all engineer units being rehabilitated or reorganized and indicating the time at which their commitment would be possible.

Relative to engineer equipment two problems wanted solution:

1. Production of equipment fitted to the possibilities of manufacture peculiar to each time and place. 2. Adequate supply to satisfy the requirements of the front. The supply was the responsibility of the Chief of Army Supply and Administration whereas volume and nature of manufacture were determined by the General Staff (Organization Branch).

It was inevitable that compromises would have to be made considering the decreasing production and the high demands of the Navy and Luftwaffe and the other arms of the Army. Simplification of equipment was one possible way to boost production. Where the production agencies could not supply the full requirements, emergency means had to be resorted to. To supplement bridge equipment, for example, standardized auxiliary bridge units, mostly of wood, were developed. They could be manufactured in shops near the front and partly by the troops themselves. Another area comprised the development of land mines. Here the goal was to simplify construction and emplacement while simultaneously increasing effect. Mine bodies and igniters were to be constructed without any metal to make them more difficult to find and render them impossible to clear. The mechanical engineer equip. (power saws, compressed-air apparatus, power generation units, and so forth) were standardized with more easily producible machine parts.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-20-

Likewise files were necessary containing all engineer units being rehabilitated or reorganized and indicating the time at which their commitment would be possible.

Relative to engineer equipment two problems wanted solution:

1. Production of equipment fitted to the possibilities of manufacture peculiar to each time and place. 2. Adequate supply to satisfy the requirements of the front. The supply was the responsibility of the Chief of Army Supply and Administration whereas volume and nature of manufacture were determined by the General Staff (Organization Branch).

It was inevitable that compromises would have to be made considering the decreasing production and the high demands of the Navy and Luftwaffe and the other arms of the Army. Simplification of equipment was one possible way to boost production. Where the production agencies could not supply the full requirements, emergency means had to be resorted to. To supplement bridge equipment, for example, standardized auxiliary bridge units, mostly of wood, were developed. They could be manufactured in shops near the front and partly by the troops themselves. Another area comprised the development of land mines. Here the goal was to simplify construction and emplacement while simultaneously increasing effect. Mine bodies and igniters were to be constructed without any metal to make them more difficult to find and render them impossible to clear. The mechanical engineer equip. (power saws, compressed-air apparatus, power generation units, and so forth) were standardized with more easily producible machine parts.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-21-

One experiment followed the other, all performed by the Army Ordnance Office. The General of Engineers here representing the Field Units, ordered experiments at the test units and the front units and on all occasions brought about the co-operation from the field. Much desirable equipment could not be manufactured because of the overburdened condition of industry and the shortage of raw materials. For example a long-distance igniting device to be used at the front to replace and avoid the lines easily destroyed by bombs and artillery fire could not be produced as well as mine detectors for the finding of non-metallic mines, practical trench dredges, and so forth.

In the second half of the war the supply of engineer equipment could no longer cover the demand at the front, hence the problem was to ration the supply according to tactical and practical viewpoints. For the latter purpose the General of Engineers and Fortresses was employed by the Chief of Army Supply and Administration.

Care for the engineer service extended to matters of organization and training as determined by the continuously arising necessities of war. Although the engineers, owing to the brevity of the campaigns in Poland and France, were just able to fulfill the tasks assigned them in 1939 and 1940, these tasks increased daily in the Russian Campaign. The call from the front for more engineers could be answered to a limited extent by the formation of new army engineer battalions. For their better utilization a greater integration under engineer commanders seemed necessary. Establishment of brigades was initiated. The intention of

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-22-

integrating all army engineer battalions in brigades failed. A higher degree of readiness for employment would no doubt have been attained by a full motorization. Endeavors in this direction failed on account of the shortage of motor vehicles. Besides in the later course of the war cuts in motor vehicle allotments became continually necessary, which often even led to a demotorization of motorized engineer battalions. This all resulted in reducing the quantity of accompanying equipment and with it the capacity of the units.

The shortage of combatants at the front led to increasing degree to the commitment of engineers for pure infantry tasks, which alienated them from their true purpose. It also led to an increased equipment of engineers with infantry weapons, which in turn entailed a decrease in engineer equipment. This development was more regrettable as the engineer tasks accumulated in the course of the war, especially after the German Army had been forced into the defensive. Instead of only standardizing as required, a break-up into more specialized units would have been desirable to allow a better utilization of the technical means. All attempts undertaken in this direction had to be abandoned sooner or later on account of the manpower shortage. In the end only the landing engineers, created during the war, remained as special units; they could also be employed advantageously on large rivers. The personnel and materiel situation unfortunately did not permit any fundamental reorganization assigning engineer forces to every upper-level command from army corps on upward. Except for the divisional

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-23-

engineers, there were therefore only army engineer units, which were committed wherever the greatest need existed.

In the field of training the newest experience gained at the front had always to be evaluated. In addition to experience reports by the field units, front trips by officers of the staff, exchanges of views with front commanders and reports concerning the enemy were the sources for the necessary information. Besides, the effects of our own and enemy weapons had to be considered. Results of evaluation mostly appeared in the form of training and commitment memoranda or directives and, in the case of weapons, also in the form of directions for use. Where pure engineer matters were concerned, evaluation was done in the staff of the General of Engineers and Fortresses; in the case of matters concerning several arms the latter were invited to participate. Co-operation and concurrence of the Training Branch of the General Staff were necessary in each case. In order to acquaint the recruits, subordinate commanders and commanders trained in the Replacement Army, with the very latest state of training, appropriate requests were made to the Commander of the Replacement Army through the Army General Staff. Particularly the schools in the Zone of Interior were provided with the latest experience, and general instruction in special courses demanded. Cases in point were lectures by seasoned officers to commanders and subordinate commanders, and training courses for engineer commanders of all grades. Occasional trips to the front by the instructors of the schools supplemented this

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-24-

training. The engineer training of other arms of service was mostly accomplished at engineer schools of the army groups and armies.

3. Fortresses

Organization and commitment in the field of national fortification were handled by the staff of the General of Engineers and Fortresses and proposed to the Army General Staff or the Wehrmacht operations Staff, with whom the decision rested. In contrast to the engineer organization, a channel within the arm of service was permissible with the Fortress Engineer Corps with regard to troop service interests (training, personnel replacements) and general directives concerning tactical and technical fortress matters. This considerably strengthened the influence of the General of Engineers over the Fortress Engineer Corps.

Construction of permanent fortress and position fronts was ordered by the OKW (Wehrmacht High Command), construction of rearward positions by the OKW or the General Staff of the Army or by local command posts. Strategic construction orders were prepared by the Wehrmacht Operations Staff or the Army General Staff. Preparation of additional construction orders for details on the

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-25-

tactical and technical sectors and of directives for the supply of construction material for positions and of equipment peculiar to fortresses was the responsibility of the General of Engineers and Fortresses. As a rule, the concurrence of the General Staff of the Army or the Wehrmacht Operations Staff was necessary for the issue of such orders. The General Staff of the Army had a special National Fortification Branch for the representation of its interests until 1940 and again after the fall of 1944.

The development of elements used in the construction of fortresses and positions (obstructions, command posts, and dugouts) was the main responsibility of the General of Engineers and Fortresses on the sector of national fortification. Preparation and execution of experiments was done in co-operation with the Army Ordnance Office. The appropriate branches of other arms were also employed in these experiments. Prerequisite for the development tasks was a continuous, thorough evaluation of experience gathered. Front reports and front trips and employment of officers with battle experience in the staff provided the source of information.

For procurement and supply of equipment peculiar to fortresses and of construction materials for positions the General of Engineers and Fortresses had to address his requisitions to the Chief of Army Equipment and furthermore to undertake the distribution to the various fronts. As difficulties in raw materials and manufactured goods arose increasingly toward the end of the war the Wehrmacht Operations Staff

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-26-

and the Army General Staff assumed close control so that the General of Engineers and Fortresses in the end exercised little more than an advisory function. Insofar as fortification establishments not occupied by troops still had military significance their maintenance and administration was the responsibility of the Commander of the Replacement Army. The agency handling the matter was the Inspectorate of Fortresses with the Commander of the Replacement Army.

A military geology organization and thirty-five geologist outposts were established for the Fortress Engineer Corps. The geologists belonging to the former were assigned permanently as the situation required to the "Chief Army Geologists in the OKH"; those belonging to the latter, to engineer staffs with army groups or armies and to the Inspectors of National Fortification for their respective districts. With respect to troop service and matters concerning their special field they were attached to the General of Engineers and Fortresses.

The Navy had established a fortress construction organization of its own, consisting of an inspector with a construction branch and higher fortress staffs as well as special naval engineer battalions for construction work. The Luftwaffe had only a small staff with the OKL and construction battalions to do the work. It was intended to combine the three fortress construction organizations of the Army, Navy and Luftwaffe under the General of Engineers and Fortresses. He finally obtained the right to inspect the activities of the fortress construction organizations of Navy and Luftwaffe. In addition the

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-27-

three branches of the Wehrmacht were bound to the basic standards and forms of the Army Construction Branch (Fortress Branch in the Army Ordnance Office) and in the case of major projects depended upon the consent of the General of Engineers and Fortresses.

Navy and Luftwaffe had no fortress engineer schools as the Army did. Their officers and fortress construction officials were trained during the war at the Fortress Engineer School at Berlin-Karlshorst together with the officers and officials of the Army. Inversely, Navy and Luftwaffe had to detach officers to the Fortress Engineer School.

Decisive for the attainment of a workable national fortification system was the quality and number of available trained officers, fortress engineer officials, and fortress engineer personnel of the lower grades who were tactically and technically well trained and could be used for reconnaissance and direction of construction and for construction work.

It was the principal idea of the General of Engineers and Fortresses to establish a Fortress Engineer Corps that would be able to adjust technique to tactics at any time. This presupposed training of the fortress engineers in combat at fortress and position fronts. The continued training of the Fortress Engineer Corps was therefore emphasized even during the war despite the many great tasks and despite personnel shortages. This fact permitted a constant opportunity for imparting the latest war experience to the troops and for the top Army command

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-28-

to gain and maintain a continuous influence down to the lowest headquarters.

Beginning as early as the winter of 1940 - 1941 officers of all arms of service, although predominately engineer officers, were again regularly trained in courses extending over several months at the Fortress Engineer School at Berlin-Karlshorst for the Fortress Engineer Corps; likewise training of noncommissioned officers with a preliminary technical education for fortress engineer officials was at once resumed.

A particularly useful influence, which provoked action quickly, was exercised by the General of Engineers and Fortresses upon organization and training of the construction engineers. This service, which had first been formed during mobilization and was composed of older men who on the whole had not yet undergone military service, was in need of a quick reorganization after the Polish Campaign. The Commander-in-Chief of the Army charged the General of Engineers and Fortresses with this reorganization as a priority task. The direct influence of the latter upon the construction engineers was strengthened for the entire duration of the war by the fact that he determined the appointments in the construction engineer units down to battalion commander without any decision by the Personnel Office. After the French Campaign the General of Engineers and Fortresses ordered the institution of an Inspector of Construction Engineers in the Replacement Army.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-29-

The commanders of the construction troops, such as battalion commanders, company commanders, and officers considered for these positions, were detached for several weeks to the Fortress Engineer School at Berlin-Karlshorst in order to be given theoretical and practical training for the construction of positions and in attack on and defense of positions.

Model positions based on war experience were built at all schools.

Moreover all commanders of the Fortress Engineer Corps and those that were selected to become such commanders were trained further in regular one-month courses in Posen under the direction of the Inspector of Eastern Fortifications. The focus of training was placed upon reconnaissance and marking of positions in theory and practice and upon map exercises concerning attack on and defense of positions and coastal sections.

At the Engineer School at Dessau-Rosslau and at the Engineer School for Heavy Bridge Construction at Speyer construction of positions in theory and practice was emphasized in the instruction of engineers and construction engineers.

In view of the ever increasing significance of fortress and position fronts a special "Fortress Branch" with a specialist as branch chief was formed in the Army Ordnance Office from the "Engineer and Fortress Branch." Gifted and technically experienced fortress engineer officers and officials were assigned to this new branch to work out an over-all concept of fortification construction, to plan practical experiments and to draft construction blueprints.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-30-

In addition a fortress engineer battalion for reconnaissance, orientation, survey, marking, and direction of the construction laborers employed was newly established on the Table of Organization of every fortress engineer staff.

4. Position of the General of Engineers and Fortresses
with Relation to the OKW

Up to 1938 national fortification was purely a matter of the OKH (Chief of the General Staff), except for matters concerning the defense areas, which in view of the necessary co-operation of various Reich Ministries were handled by the OKW. Up to that time, therefore, the post of "Inspector of Engineers and Fortresses" was in no way represented in or attached to the OKW. The Inspector received all OKW orders and directives through the Commander-in-Chief of the Army; any correspondence -- which, however, never occurred -- would have had to be routed through the Commander-in-Chief of the Army. Only after Hitler's inspection in the fall of 1938 of the fortifications at the Oder-Warthe arc did a fundamental change occur. Suddenly Hitler seized the entire planning and execution of national fortifications for himself. The famous memorandum entitled "Thoughts on Modern Fortifications" was written by Hitler himself in 1938 on the basis of his trip to the Oder-Warthe arc. From this time on Hitler interfered in matters of national fortification to a very large extent. Drafting fortification structures became one of Hitler's favorite pastimes with Dr. Todt supplying him with authoritative advice.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-31-

And thus it came about that Hitler from then on more and more frequently invited the Inspector of Fortresses or in his stead the officer in charge of technical matters at the Inspectorate of Fortresses to participate in discussions, official trips, test firing and so forth, that concerned fortification affairs. As a rule, Dr. Todt was also present on these occasions. And thus Hitler often passed his thoughts or wishes, orders or observations or objections relative to national fortification directly to the Inspector and the Chief of the Organization Todt or their deputies, skipping the Commander-in-Chief of the Army; inversely the Inspector or later on the General of Engineers and Fortresses with the Commander-in-Chief of the Army was authorized at any time to make an appointment for a report to Hitler or the Chief of the OKW. Orientation of the Commander-in-Chief of the Army and the Chief of the General Staff was then left to the Inspector, though his formal subordination to these agencies was not altered. It was readjusted only in 1942 (April 15). In 1942 Hitler wished to transfer the officer in charge for many years of technical matters at the Inspectorate of Fortresses and later of the General of Engineers and Fortresses, who was personally known to him, into the OKW to establish a permanent liaison officer to the office of the General of Engineers and Fortresses. In view of the fact that at that time no suitable replacement conversant with the job was available to the General of Engineers and Fortresses the officer mentioned remained with the staff of the General of Engineers and Fortresses for the time being in his capacity as liaison officer.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-32-

His job was then to regularly inform the OKW and Wehrmacht Operations Staff of activities concerning national defense at the office of the General of Engineers and Fortresses and, on the other hand, to regularly inform himself at the Wehrmacht Operations Staff of the situation in prospect insofar as it was necessary or of interest for the work of the General of Engineers and Fortresses. His successor as liaison officer was assigned to the Wehrmacht Operations Staff but he, too, in general only had to concern himself with fortress matters. A final solution did not occur until 1944 with the third liaison officer, who was assigned to the Wehrmacht Operations Staff and, in accordance with his rank (colonel) and his training background (engineer and fortress engineer), was equally valuable in both pure engineer and fortress engineer matters for both OKW and the General of Engineers and Fortresses. By that time permanent fortifications were of course no longer of any great importance, but construction of positions had gained considerable prominence.

Since the Wehrmacht Operations Staff after 1942 engaged in direct conduct of operations in the so-called OKW theaters and, as mentioned elsewhere, its duties as an over-all co-ordinating agency shrank to an increasing degree, the field of the functions of the liaison officer of the General of Engineers and Fortresses to the Wehrmacht Operations Staff was shifted accordingly. Although he retained Wehrmacht responsibilities to the extent that he co-ordinated all technical engineer and national fortification jobs of the three branches

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-33-

of the Wehrmacht and was a link in the co-operation with the Organization Todt, his assignments actually comprised only the OKW theaters. Affairs concerning the Russian theater operated through the General Staff of the Army were handled directly by the staff of the General of Engineers and Fortresses with OKH without being channeled through the liaison officer.

From the moment when Navy and Luftwaffe took part in the defense of fortress fronts, responsibility for preparation and execution of defense, as far as evaluation of battle experience was concerned, had to be integrated clearly and without reservations in one hand, and so, by a Fuehrer order dated 15 April 1942, the General of Engineers and Fortresses, as a Wehrmacht agency, was placed in charge of the technical execution of the construction of fortress fronts and in performance of this duty was given the right of issuing directives to the participating agencies of the Wehrmacht branches, the Wehrmacht occupation commanders and the participating organizations outside the Wehrmacht. This constituted a decisive step forward, which had a favorable effect upon the uniform training and orientation of the three Wehrmacht branches with respect to construction of positions and fortresses and standardization of the elements of fortress construction.

Preparation of strategic construction orders was done as before, on the whole without participation of the General of Engineers and Fortresses, by the Wehrmacht Operations Staff or the Army General Staff.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-34-

Additional construction orders containing tactical or technical details were prepared by the General of Engineers and Fortresses, but before issuance he had to obtain the approval of the Wehrmacht Operations Staff and perhaps also of the Army General Staff. Such fortress construction agencies of the Army as fortress engineer commanders and commanders of fortress engineer staffs, who were given Wehrmacht command authority in their construction activities also had Wehrmacht authority as unit commanders when dealing with agencies of the Wehrmacht Branches, that is Navy and Luftwaffe units.

In addition to engineer and construction engineer units the Wehrmacht High Command had forces of the Reich Labor Service and the Organization Todt at its disposal. Employment of the Reich Labor Service was only temporary and for short periods of time, agreement for its use for certain purposes having been reached with the Reich Labor Minister. The Reich Labor Service was chiefly employed in construction of military positions, such as those within the area of the West Wall 1939-1940, or of the Atlantic Wall 1943-1944, and also for construction of roads and bridges (French campaign 1940, Russian campaign 1941). In general the Reich Labor Service was attached to an army group or an army and at the same time a senior Reich Labor Service leader was assigned to the headquarters concerned, to direct the employment of the Reich Labor Service units according to the directives of the Commanding General in concurrence with the appropriate senior engineer commanders. At the places of commitment the Reich Labor

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-35-

Service units received detailed instructions from the field troop units or the local engineer commanders.

In contrast with the Reich Labor Service, the Organization Todt was actively employed by the Wehrmacht from the French Campaign on continuously throughout the war. While its employment in the French campaign was still improvised, this experience permitted the forming of excellent, serviceable policy for commitment in the Russian Campaign and thereafter. So-called "commitment sector leaders" of the Todt Organization (re-named Engineers-General in 1943) were attached to each army group. They co-operated with the General of Engineers of the army group according to directives of the Commanding General and controlled the employment of the Organization Todt within the army group area. Under them were Organization Todt units with a strength per "commitment sector" of about 1,800 German personnel. In general one Organization Todt unit was supplied for each army. The Organization Todt employed at the Atlantic Wall is not counted in this figure.

Over-all control of the Organization Todt and supply of the units with men, vehicles, equipment, machines, clothing, and so forth were functions of the Central Office of the Organization Todt in Berlin, which was represented by an Organization Todt liaison leader in the staff of the Chief of the General Staff, in that of the General of Engineers and Fortresses and in that of the Chief of Transportation. Inversely, a liaison officer of the General of Engineers and Fortresses stayed with the Central Office of the Organization Todt in Berlin.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-36-

The chief missions of the Organization Todt in the field of the General of Engineers and Fortresses follow:

- Construction of fortresses.
- Construction of reinforced military field positions.
- Construction of roads and bridges in the area of operations.

In the field of the Chief of Transportation they consisted of the following:

- Construction of roads and railroads in the rear area of the Army.

In the field of supply as follows:

- Repair of industrial plants and public utilities (power, water, gas).

The ever increasing shortage of fuels (Diesel and Otto) and of construction materials, primarily steel and cement, necessitated a central control of fuels and construction materials for the three Wehrmacht branches by the Wehrmacht High Command. The Chief of the Wehrmacht High Command entrusted this mission to the General of Engineers and Fortresses.

The General of Engineers and Fortresses then had to report the requirements of the three Wehrmacht branches for fortress construction in the various theaters every month to the Chief of the Wehrmacht High Command who thereupon fixed a monthly allotment and left the distribution to the requisitioning agencies to the General of Engineers and Fortresses.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-37-

A similar situation existed in 1943 as concerned construction materials in the area of the Commander-in-Chief West, where the construction requirements of the three Wehrmacht branches exceeded the possible construction accomplishments by a great deal. In addition the Organization Todt built structures that had nothing to do with the Atlantic Wall as such. Since no agency felt it could reduce its requisitions, a central Wehrmacht regulation and control of the distribution of concrete to the three Wehrmacht branches and the Organization Todt was inevitable. From then on all interested agencies including the Organization Todt had to report their construction wishes semi-annually to the Commander-in-Chief West (Inspector of National Fortification). The Engineer-General attached to the Commander-in-Chief West, on the other hand, had to report to the Commander-in-Chief West the possible concrete production in the various sections on the basis of available manpower and materials. The Commander-in-Chief West submitted the reports together with his distribution proposal to the Wehrmacht Operations Staff through the General of Engineers and Fortresses. After a study had been presented by the General of Engineers and Fortresses, the Chief of the Wehrmacht High Command made the final decision, if necessary according to directives based on a mutual oral report to Hitler.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-38-

VI. FINAL OPINION CONCERNING THE TOP-LEVEL REPRESENTATION OF ENGINEERS,
CONSTRUCTION ENGINEERS, AND FORTRESSES IN THE ARMY HIGH COMMAND

1. The top-level representation of the chief arms of service in the Army High Command was anything but perfection as long as its sphere of influence was confined to the Field Army and its influence upon the Replacement Army depended entirely on the individual personal relations of the chiefs of arms and services to the Commander of the Replacement Army and his office chiefs and to the authoritative representatives of their arms with the Commander of the Replacement Army. Shortly after the chiefs of arms and services had been established in 1939, the Commander of the Replacement Army had requested of his own accord that they be made his advisers in their special fields, be charged with the supervision of headquarters, service schools, and replacement units under his jurisdiction and at the same time be assigned to him. This wish, however, met with the disapproval of the chiefs of arms and services in a conference between them and the Commander of the Replacement Army, because it was impossible at the time to survey the effects of their functions in the Field Army and because the Commander-in-Chief of the Army did not wish to divert them too much from their job of "caring for the front." The responsible administration of all headquarters, units and service schools under the Commander of the Replacement Army by the chiefs of arms and services was resumed only toward the end of the war in 1944 and 1945 by the then Chief of the General Staff in conjunction with the new Commander of the Replacement Army.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-39-

For a sketch of the reorganization of the chiefs of arms and services toward the end of the war see Annex 10.

From then on the chiefs of arms and services were assigned both to the Chief of General Staff and the Commander of the Replacement Army since there no longer was a common head in the person of a Commander-in-Chief of the Army. Otherwise this unhappy double subordination could have been avoided. An advantage of the new organization was that the Chief of the General Staff quite considerably strengthened his influence on the training in the Replacement Army over that of the chiefs of arms and services. From then on the chiefs of arms and services bore the designation of General of . . . * in the Army High Command. The reorganization effected the internal organization of the General of Engineers and Fortresses in that a colonel of the general staff was assigned to him as chief of staff, in order that a representative of the top of the arm of service be constantly present in the Army High Command during the increasingly frequent absences of his Chief. In addition a special Training Branch was formed within the staff, which represented the training interests of both the front and the zone of interior. The Regulations Section under the Commander of the Replacement Army was subordinated to it (see Annex 11). At the same time the posts of Inspector of Engineers and Inspector of Fortresses with the Commander of the Replacement Army were refilled

* Infantry, Cavalry, Armor, Luftwaffe, etc. depending upon their arm or service. (Editor)

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-40-

with generals who had had combat experience. Only the Inspector of Construction Troops remained since he had only been appointed during the war. The reorganization was generally welcomed by all concerned, but it could not become duly effective before the end of the war.

2. Although the establishment of a common top direction for engineers, construction engineers, and national fortification had equally favorable effects for all three arms of service, since their jobs constantly overlapped the responsibilities arising during the war were too extensive for the one post of General of Engineers and Fortresses and the area of his field of activities were too large. Owing to the tremendous tasks on the fortification sector -- only one task need be cited in example: the Atlantic Wall from the North Cape to the Pyrenees -- the General of Engineers and Fortresses increasingly lacked the time to occupy himself with the engineers and construction engineers to the extent required and to visit them frequently at the front in addition to accomplishing his fortification tasks, which became ever more voluminous, more urgent, and more difficult.

Without pointing out in detail the consequences arising from the situation depicted above for the field of personnel and material administration, of organization, of aid in the formation of new units, of training, and of practical employment, the necessity of a reorganization is obvious. Here the question arises whether the fortification sector might not be severed from the General of Engineers and Fortresses. Such a separation must be strongly rejected for personnel reasons and

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-41-

because of the field involved. Between engineers on the one hand and construction and fortification engineers on the other an exchange of personnel is necessary and practical. Moreover their jobs are similar in many respects and overlap. This applies particularly to construction of fortified positions and to a uniform construction material supply. The engineer embodies the attack, but he must also master the defense, and the same is inversely true of the fortress and construction engineers. There is no fortress engineer officer but only an engineer officer. A central over-all control must therefore be retained. As a solution a peacetime organization may be suggested, which was in operation until 1914 and proved very good. As the Table below shows, the proposal is built upon the Army High Command and assumes that no separation of Wehrmacht High Command and Army High Command theaters will occur.

Supreme Command of the German Armed Forces

Luftwaffe High Command

Army High Command

Navy High Command

Commander-in-Chief of the Army

Inspector General

of Engineers, Construction Engineers, and National Fortifications

Replacement Army

- 1 Inspector of Engineers
- 1 Inspector of Construction Engineers
- 1 Inspector of National Fortifications
- 1 Inspector of Landing Engineers

Field Army

- 1 General of Engineers
- 1 General of Construction Engineers
- 1 General of National Fortifications
- 1 General of Landing Engineers

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-42 -

The number of generals of engineers with the Field Army was originally one each, their number increased when there were several extensive theaters of operations and especially if these were very distant from one another. The Inspector of Landing Engineers and the General of Landing Engineers were necessary only when as in the last war large-scale commitments of landing engineers are projected.

The function of the chiefs of arms and services mostly consisted of trips to the front, but they might also be employed by the Inspector General for specific missions, as the General of Landing Engineers was in the last war. They also might at any time be requested by the commanders-in-chief of the theaters of operations for specific assignments and be temporarily put at the latter's disposal.

3. During World War II "Inspectors of National Fortifications" were at the disposal of the General of Engineers and Fortresses for those theaters where national fortifications existed on a large scale. An Inspector North existed for Norway and Denmark, an Inspector West for France, an Inspector South for Italy, an Inspector Southeast for the Balkans, and in addition there was an Inspector East, who was used by the General of Engineers and Fortresses for special missions. With respect to employment these inspectors were assigned to the commanders-in-chief of the theaters concerned; with respect to troop service, that is in personnel, training and technical matters, to the General of Engineers and Fortresses. Assigned in a similar manner to the inspectors in turn were all headquarters of the Fortress Engineer Corps in their

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-43-

respective districts such as fortress engineer commanders with armies and fortress engineer staffs with corps and divisions. Channels existed between all these agencies and the General of Engineers and Fortresses. The resulting personal influence of the General of Engineers and Fortresses on these inspectors and of these inspectors in turn on the Fortress Engineer Corps had a very advantageous effect, substantially facilitating and expediting the issue of orders, enhancing interest in the incumbent tasks, strengthening the feeling of responsibility, and increasing eagerness for service.

In comparison, there were also generals of the engineers with such top commands as the commanding generals of army groups and armies, but they were assigned solely to their tactical headquarters (army groups), the army engineer commanders solely to their army headquarters. Here a channel within the arm of service was prohibited. All orders concerning engineers went through the chain of command. Thus the senior engineer commanders were chiefly advisers and specialists on their unit staffs, and any exercise of personal influence was rendered difficult by the organizational setup. Their outside influence, primarily on the engineer and construction units committed in the area of the army group or the army, became a matter of personality. For strong personalities, however, such positions offered too little. Hence, competent men aimed at the career of division commander, which afforded them greater independence, more ways for action and more satisfaction. Aside from this the career of division commander guaranteed priority

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-44-

promotion and obtainment of higher decoration.

A situation of this type must automatically cause a drop in the personal standard of the generals holding senior engineer positions with army groups and armies. What must be solved therefore is the problem of how to elevate the position of senior engineer commanders with army groups and armies, first in the interest of the field itself, secondly for personnel reasons, in order to win the best engineer officers whole-heartedly for the subject, men who are an absolute necessity in just these positions with army groups and armies.

~~RESTRICTED~~

Inspectorate of Engineers from 1938 to the Beginning of the War on 1 September 1939

~~RESTRICTED~~

(Peacetime Organization)

Commander-in-Chief of the Army

Army Ordnance Office

Section 5 - Engr & Fort Br

Engr Procurement Br

Inspector of Engineers

with

Inspectorate of Engrs assigned to him *

General Staff of the Army
Operations Branch
Organization Branch
Troop Training Branch
Officer Training & Regulations Branch
Technical Branch
Supply Branch
Foreign Armies Branches

(1.)
(2.)
(4.)
(11.)
(8.)
(6.)
(3. and 12.)

General Army Office
Ordnance Inspectorate
Inspectorate of OC Schools

Army Personnel Office

Senior Engineer Officers

with Section Hqs 1 - 5

Engineer School I, Berlin-Karlshorst
(Training courses for engineer officers
and for fortress engineer officials)

Engineer School II, Dessau-Rosslau
with Engr Instruction & Test Bn
(Training courses with officer
examinations for officer candidates
with master sergeant's rank, for
reserve engineer officers, and special
courses for troop service of con-
struction engineers and combat
engineers.)

* The Inspectorate of Engineers as an
arms branch was assigned to the
General Army Office

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-46-
Annex 2

BASIC DIRECTIVE GOVERNING THE INSPECTOR OF ENGINEERS

The Inspector of Engineers is subordinate to the Commander-in-Chief of the Army. He is the head of the Engineer arm. He is responsible for the uniform practical and theoretical training and systematic further development of the engineers and the engineer training of the infantry, as well as for the training of new officers in his arm of service.

To these ends he will make appropriate proposals to the Commander-in-Chief of the Army or issue directives and orders as instructed by the latter.

He also will submit requests to the Commander-in-Chief of the Army at the proper times and with a view to the future concerning the engineer sectors of organization, personnel, equipment, and development of weapons.

He will make suggestions concerning appointments of officers.

On instructions of the Commander-in-Chief of the Army he will direct staff exercises and tactical rides, which form part of the training of engineers and pioneers as well as of the commitment of engineers and pioneers within combined arms units.

His Inspectorate is simultaneously subordinate to the Inspector as a working staff and to the General Army Office as an arms branch.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-47-
Annex 3

DUTIES OF THE INSPECTORATE OF ENGINEERS

(As of the beginning of the war: Engineer Branch of the
General Army Office [Inspectorate 5] .)

CHIEF OF STAFF

- Section I : Training, organization, build-up of the Army,
mobilization, war strength accounts and war
equipment accounts.
Tactical and technical troop experiments.
Training manuals.
Evaluation of information on engineers of foreign
armies.
Supervision of and contribution to military literature
relating to the special subject matter of this section.
- Section II : Personal data on officers, officials, noncommissioned
officers, enlisted men, in cooperation with the Army
Personnel Office and General Army Office.
Suggestions for appointments of officers in the fields
of Inspectorate 5, Inspectorate of Fortresses,
Inspectorate 10 and Inspectorate 11.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-48-
Annex 3

Section III: Administration and supply of engineer equipment and engineer means of combat (in cooperation with Ordnance Inspectorate). Evaluation of war experience with German and captured engineer equipment and means of combat. Technical experiments. Requirements concerning development of engineer means of combat and equipment.

Section IV : Budget affairs: administration of engineer maneuver funds.

Section V , Barracks and training grounds of engineers.

Section VI : Military literature.

~~RESTRICTED~~

~~RESTRICTED~~Organisation of Top-Level Representation of Engineers from 1 September 1939 to 15 October 1939

Commander-in-Chief of the Army

Chief of Army Equipment & CG, Repl Army

Army Ordn Off	Inspector of Engrs & RR Engrs	Gen Army Off	Inspector of Fortresses *	Inspector of Service Schools
Engr & Fortress Br (Wa Pruef 5)	Engr Br (In 5)	RR Engr Br (In 10)	Inspectorate of Fortresses (In Post)	Inspectorate of Service Schools (In 1)
	Dessau Rossau Engr School w/Regulations Sec	Sperenberg RR Engr School	Karlshorst Fort Engr School	
	Engr Instruction & Test Bn	RR Engr Instruction & Test Bn		

Post is occupied by peacetime
Insp of Engrs & Forts, subse-
quently Gen of Engrs & Forts
with the Army C-in-C

~~RESTRICTED~~

~~RESTRICTED~~

Organization of the General of Engineers and Fortresses with the Army Commander-in-Chief as of 15 October 1939

MS # P-041 o

Army Commander-in-Chief

Army High Comd - Col GenS

Army High Comd - Pers Off

Gen of Engrs & Forts w/Army C-in-C

Army High Comd - CG, Regl Army

Army Ordn Office

Insp of Serv
Schools

Gen Army Office
Insp of Engrs
& RR Engrs

Engr & Fortress Br
(wa P1 & 5)

Inspectorate of Fortresses
(In Fest)

Inspectorate of
Serv Schools
(In 1)

Engr Br
(In 5)

RR Engr Br
(In 10)

Berlin-Karlshorst
Fortress Engr School

Dessau-Rosslau
Engr School
w/Regulations
Sec

Rahagen-Klausdorf
RR Engr School

Engr Instruction
& Test Bn
Dessau-Rosslau

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-51-
Annex 6

DUTIES OF THE INSPECTORATE OF RAILROAD ENGINEERS

(Inspectorate 10)

Section I : Equipment and organization of railroad engineers, engineer machine platoons; together with Engineer Branch (Inspectorate 5) training, exercises, guiding principles for manuals, requests for development, strength accounts, equipment accounts, introduction of equipment, evaluation of experience.

Section II : Personnel matters of officers, technical officials, and noncommissioned officers of specialist's careers with Engineer Branch; internal affairs of Inspectorate of Railroad Engineers.

Section III: Technical data for training manuals, development of equipment and construction processes, tests and experiments, construction and operation of standard-gage, field and cable railways, surveying, construction of railroad bridges, equipment for war bridges. Supply of troops with railroad engineer equipment, construction materials and fuel, with engineer equipment and general Army equipment.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-52-
Annex 6

Section IV : Budget and administrative matters, price control,
affairs of officials, employees, and laborers,
billeting and clothing affairs.

Section V : Billeting affairs (garrisons, training grounds,
equipment parks and shops, buildings).
Affairs relating to counterintelligence, air raid
and gas protection.

Section VI : Units, equipment, and processes of road construction,
snow removal units, waterways.

Registry

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-53-
Annex 7

BASIC REGULATIONS GOVERNING THE INSPECTOR OF FORTRESSES

WITH THE COMMANDER, REPLACEMENT ARMY

1. The Inspector is the adviser of the Commander-in-Chief of the Army in all questions of tactical and technical execution in the field of national fortification and with respect to these matters is directly subordinate to him. He will make suggestions for the employment of personnel and material for national fortification.
2. He is assigned to the Commander of the Replacement Army.
3. He may be entrusted with the accomplishment of special missions in the field of national fortification. The regulations issued in peace-time apply to him in the construction of national fortifications.
4. The Inspector of Fortresses will issue directives for uniform construction of national fortifications according to instructions from the Commander-in-Chief of the Army (evaluation of war experience).
5. The Inspector will control employment and assignments of personnel from fortress engineer staffs.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-54-
Annex 8

DUTIES OF INSPECTORATE OF FORTRESSES (In Fest)

Section Ia : Tactical matters of national fortifications, principles and directives for construction, training and mobilization. Organization of Fortress Engineer Corps, training courses, exercises. Prevention of espionage, administration of restricted areas in conjunction with national fortification.

Section II : Construction of eastern national fortifications.

Section IIW : Construction of western national fortifications.

Section III : Development and construction. Technical fortress manuals (interior fittings). Experimental structures, air raid protection facilities, troop experiments, machine plants, electrotechnical plants, ventilation and gas protection, irrigation and drainage, special vehicles.

Section IV : Administration, procurement, and supply. Law concerning restricted areas, budget, training of fortress engineer officials, technical fortification officials, fortress personnel, and specialist-career noncommissioned officers. Raw material matters, steel allotments, tank procurement, cement allotments, emplacement of weapons

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-58-
Annex 8

Section IV : in fortifications.
(Cont)

Construction materials for obstructions, positions, and signal systems. Interior fittings and engineer equipment. Gas protection and medical equipment, food and fuel.

Timber allotments.

Section V : Matters of foreign national fortifications.

Section VI : Preparations of personnel and materiel for obstructions, provision with weapons (including construction of field fortifications), securing of construction materials. Employment of construction troops, training of construction troop commanders. Regulations governing the provision with weapons. Manual "Construction of Positions." Road construction within national fortification.

Section VII : Staff desk; Mobilization calendar of the Inspectorate of Fortresses, personnel data of officers at fortification headquarters together with Section II of Engineer Branch, internal official matters of the staff.

Section VIII: Signal service of national fortifications, messages, provision with weapons.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-56-
Annex 8

Section IX : Military-geologic section for the execution of
construction work.

Registry : Handling of registration. Army regulations.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-57-
Annex 9

DUTIES OF GENERAL OF ENGINEERS AND FORTRESSES WITH THE
CHIEF OF THE ARMY GENERAL STAFF AFTER 1942

I. Section: Adjutant's office and Handling of Personnel Matters

Personal affairs of the members of the staff, personnel matters concerning officers of the engineers, the construction engineers, and the fortress engineers in conjunction with the Personnel Office (PA 5).

Appointments to engineer, construction engineer, and fortress engineer units.

II. Engineer Branch, Chief: Colonel

1. Suggestions for employment and assignment of Army engineers and construction engineers (for Operations Branch) according to situation and intentions of the High Command, supervision of commitments of engineers and construction engineers in their services, filing and evaluation of condition and commitment reports from the front, advising of the General Staff in technical engineer matters, up-to-date maintenance of engineer situation map and road condition map in the theaters of operations.

2. Organization of engineers and construction engineers in concurrence with the Organization Branch of the General Staff, suggestions on organization and provision of engineers and construction engineers with personnel, weapons, engineer means of

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-58-
Annex 9

combat, equipment, and material of all kinds including vehicles. Rehabilitation and new formation of engineer and construction engineer units, replacements of noncommissioned officers and enlisted men.

3. Training: Supervision and promotion of the training of the front troops (engineer and construction engineer officers, noncommissioned officers and enlisted men) and training activities with the Replacement Army. Evaluation of war experience, speedy preparation of manuals and memoranda on the basis of new war experience for training purposes in the Replacement Army and as directives for front units in concurrence with the Training Branch (General Staff).

4. Supply and Development: Suggestions for control of supply of engineer means of combat (mines, explosives, etc.) to the Chief of the Supply and Administration Branch of the Army General Staff. Requisitions for supplementation of equipment, bridge implements, etc., to Commander of the Replacement Army through the Organization Branch. Requests for development of new means of combat (hollow charges) and implements or improvements (increase of load capacity of war bridge implements or increase of production figures such as of mines) to Commander of the Replacement Army through Organization Branch (General Staff).

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-59-
Annex 9

III. National Fortification Branch - Chief: Colonel

1. Employment of fortress engineer units in concurrence with the Operations Branch of the Army or Wehrmacht High Command.
2. Questions of technical development and execution of fortress construction in concurrence with the Commander of the Replacement Army (Inspectorate of Fortresses: Army Ordnance Office, Fortress Branch). Evaluation of technical experience for construction of fortresses and positions.
3. Special officer in charge of construction of fortresses and positions in the various theaters (Norway, France, Italy, and so forth). Up-to-date maintenance of situation maps (Position maps, and the like) and the technical construction reports.
4. Supply of elements of fortress construction and of construction materials for obstructions and positions for all theaters and also for Navy and Luftwaffe together with the Inspectorate of Fortresses with the Commander of the Replacement Army.
5. Preparation of manuals in cooperation with the Inspectorate of Fortresses with the Commander of the Replacement Army.
6. Staff officers of infantry and artillery. Representation of interests of their arms of service in planning and execution of national fortifications.
7. Liaison chief of the Organization Todt in all matters of Organization Todt employment.

~~RESTRICTED~~

~~RESTRICTED~~

MS # P-041 o

-60-
Annex 9

8. Office of cartographers and draftsmen.

IV. Branch for Evaluation of Foreign National Fortifications -

Chief: Brigadier General - Location: Berlin

V. Military Geology Branch - Chief: Ministerialrat - Location: Berlin

In addition thirty-five military geologist's outposts with army groups and armies.

VI. Registry for incoming and outgoing documents, Army regulations.

VII. General on Special Assignments - Chief: Major General

For a preparation of all the numerous position constructions in the East from the summer of 1944 on, the former Inspector of Eastern Fortifications with five officers -- chiefly so-called "travel officers" -- was assigned as General on Special Assignment to the General of Engineers and Fortresses with the Chief of General Staff. Cooperation with Operations Branch and National Fortification Branch of the General Staff.

Note:

For representation of the interests of Navy and Luftwaffe one more officer each for the National Fortification Branch with the General of Engineers and Fortresses was envisaged. This intention was not realized.

~~RESTRICTED~~

MS # P-041 o

Annex 10Organization of General of Engineers and Fortresses in theArmy High Command Toward the End of the War

Army H Comd - Cof GenS

Gen of Engrs & Forts
in Army H Comd

Army H Comd - CG, Repl Army

Army H Comd - Pers Office

Inspector of Engrs
(CG, Repl Army)Inspector of
Fortresses
(CG, Repl Army)Inspector of Con-
struction Troops
(CG, Repl Army)specific
affairs of the
service armsubordinate only in specific
affairs of the service armsubordinate only in specific
affairs of the service arm

Army Ordn Office

General Army Office

Fort Branch

subordinate only in

Engr Branch

subordinate only in specific
affairs of the service arm
Engr BranchInspectorate of
FortsDessau-Rooslan
Engr SchoolSpeyer Engr
School for Heavy
Bridge Con-
structionBerlin-Karlshorst
Fortress Engr School

with

Regulations Sec *
& Test Branch

assigned to

Inspector General for Commanders-to-Be

subordinate to

General Army Office

- * The Regulations Section is now assigned to the Training Branch in the staff of the Gen of Engrs & Forts in the Army High Command

~~RESTRICTED~~~~RESTRICTED~~

~~RESTRICTED~~Organization of the Staff of the General of Engineers and Fortresses in the Army High Command as of 1945Chief of Staff

Personal Br *
with
Staff Section

Engr Br
for
engineers &
constructive

National Fort Br
assigned:
Organisation Todt
troops Liaison Chief

Training Br
assigned:
Regulations
Sec
Dessau-Rosslau

Mil Geology Br
Location:
Berlin

Branch for Evaluation
of Foreign Nat Forts
Location:
Berlin

* directly assigned
to Gen of Engrs
without Staff Section

Directly assigned to Gen of Engrs: The General on Special Assignments East
(Major General) for preparation of
position constructions in the East as
of the summer of 1944.

~~RESTRICTED~~